UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
SITTA, GRANT

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>13 September 2011</u>.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) <u>1-5</u> is/are pending in the application.
    5a) Of the above claim(s) _____ is/are withdrawn from consideration.
6) ☐ Claim(s) _____ is/are allowed.
7) ☒ Claim(s) <u>1-5</u> is/are rejected.
8) ☐ Claim(s) _____ is/are objected to.
9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10) ☐ The specification is objected to by the Examiner.
11) ☒ The drawing(s) filed on <u>04 March 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>10/26/2011</u>.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/13/2011 have been fully considered but they are
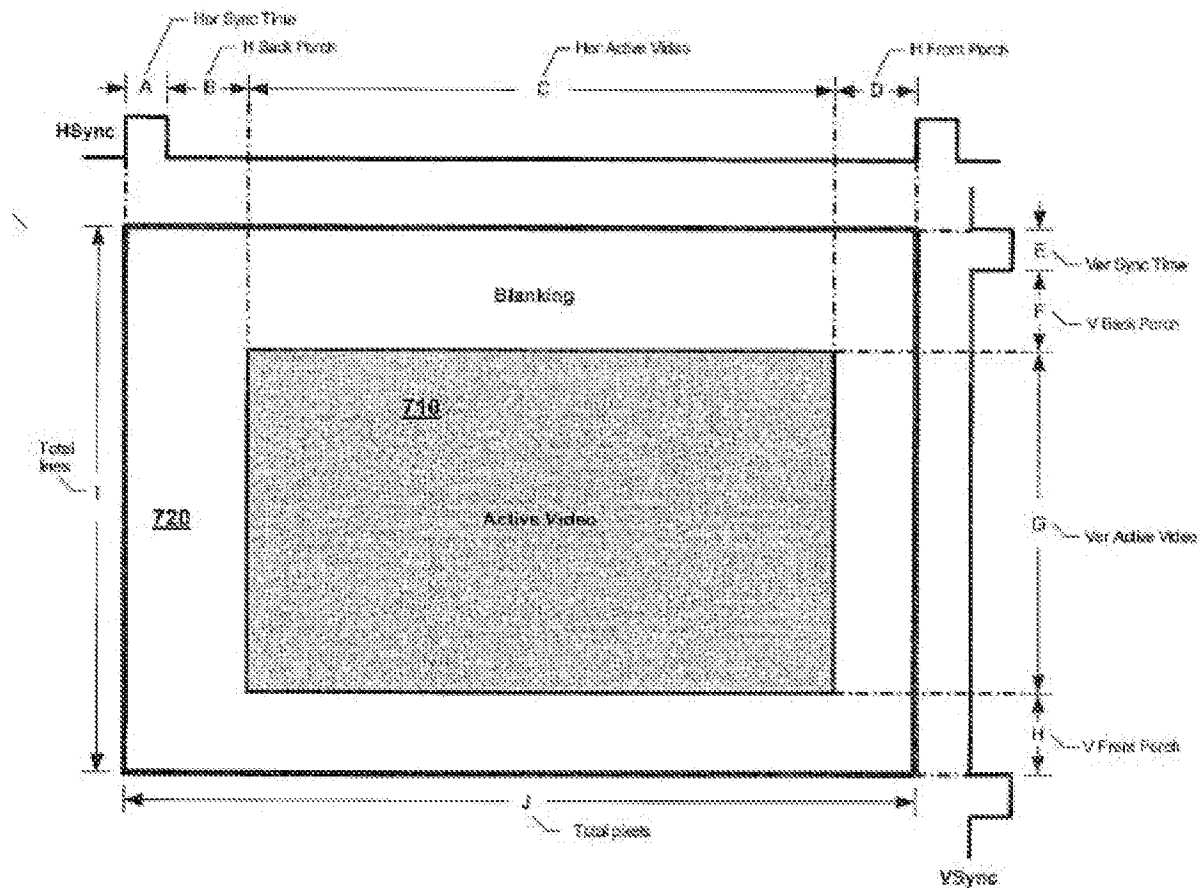
not persuasive.

Applicant contends

However, based on the example provided in the Office Action, it can be seen that the Office
Action still has not shown that the '334 publication teaches "if no black border is found [near] to
[the] expected border location, discarding the adjusted screen border and loading a
predetermined set of values for the screen border," as had been admitted by previous Office
Actions. The process described by the Office Action actually detected that a black border was
present (by detecting that there was black and then detecting that the adjacent pixel was not
black), and the process then used "the screen resolution of the host computer detected at the VPS
instead of discarding the adjusted screen border and loading a predetermined set of values for the
screen border." The Office Action has not shown what happens when no black border is
detected. As such, the claims are patentable over the '334 publication as they have not been
shown to be anticipated by the '334 publication.

Examiner respectfully disagrees. Schneider teaches determination of other

modes that may be aided by reference to VESA [0060]. In addition to the VESA

standard [0061] Schneider discusses an automated method of adjusting the front

porch/back porch to find the proper resolution [0062]. Examiner asserts, Schneider

teaches if no black border is found *near* to the expected border location, discarding the

adjusted screen border and loading a predetermined set of values for the screen

border". ([0063] In the second automated embodiment, a process similar to the first

automated embodiment is used, except that the beginning of the row is analyzed. If the

beginning of the row is found to be black, then the front porch value is increased until a

non-black pixel is found in iteration I. Conversely, if the beginning of the row is found to

be colored, then the front porch value is decreased until a black pixel is found in

iteration I. Then the front porch value is reverted to the front porch value in iteration I-1).

Schneider uses black pixels for the displayed image and non-black pixels (colored) for the background [0062]. Schneider uses iterations to automatically fine tune the resolution. While the claims are viewed in light of the specification limitations from the specification cannot be read into the claims. MPEP 2111. Examiner has provided a few examples of how the cited section of Schneider reads on the current claim limitation which are provided to help clarify Examiner's understanding of how the cited Prior Art reads on the current claims and should not be viewed as limiting the teachings of Schneider.

For example, the VESA resolution is loaded. A colored background is placed on the image forming a colored border. A first iteration is performed. The VESA standard of 800 is loaded, the first front porch pixel is black, next, the front porch is shortened, to 799 which is colored. As a result, a non-black border is found near to the expected border location and a predetermined value is loaded. Likewise, the front porch could go through two iterations 798 in which case 799 would be loaded.

For another example, the VESA resolution is loaded. A colored background is placed on the image forming a colored border. A first iteration is performed. If "the beginning of the row is found to be colored, then the front porch value is decreased until a black pixel is found in iteration I" [0062]. As shown above if the width (row) is the adjusted VESA loaded, but the first pixel is found to be colored (non-black) the adjusted VESA 800 is discarded and a predetermined set of values is loaded , i.e., the decreased front porch value until a black pixel is found. Schneider teaches modifying front porch, back porch or both the front and back porch [0062.0063,0064].

Examiner notes, while not necessary "near" fails to point a particualar distance.

Examiner has provided a marked up drawing to show how front and back proches relate

to borders and active video and their "near" relationships. Examiner further notes, the

current claim language does not require a particualar order in carrying out searching for

a black border, or that the "predetermined set of values for the screen border" be

different than the adjusted screen border. For these reasons Examiner asserts the

rejection is maintained.

If Applicant believes an interview would help advance prosecution Applicant is

encourgaed to call the Examiner to expidite prosecution.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

2.   Claims 1-5 are rejected under 35 U.S.C. 102(e) as being Schneider et al by

2002/0038334, hereinafter, Schneider.

3.   In regards to claim 1, Schneider discloses the limitations of a method of image

improvement in a virtual presence architecture (VPA) (fig. 1a (12, 50 and 20a-20c))

including a host computer (fig. 1a (20a-20c)) in communication with a virtual presence

server (VPS) (fig. 1a (50)), a remote computer in communication with a virtual presence

client (VPC) (fig.1a (12)), the method: on each new screen resolution that is received by

a VPS ([0046] and [0025-0027]), comprising:

        detecting at the VPS a new screen resolution of the host computer [0069],

        adjusting a screen border to correspond with the new screen resolution ([0046]

and [0061-0067]);

identifying whether the adjusted screen edge is near an expected location

[0062];

if no black border is found near to the expected border location [0060] discarding

the adjusted screen border and loading a predetermined set of values [0060] screen

border; and

if a black border is found near to the expected border location [0062], using the

screen resolution of the host computer detected [0060] at the VPS instead of discarding

the adjusted screen border and loading a predetermined set of values for the screen

border [0059-0063].

[0060] As would be appreciated by one of ordinary skill in the art, other resolutions are possible. *The determination of other possible modes may be aided by reference to VESA and Industry Standards and Guidelines* for Computer Display Monitor Timing, Version 1.0, Revision 0.7, Revision Date: Dec. 18, 1996, the contents of which are incorporated herein by reference.

[0061*] In addition to the above factors used to control video modes*, the system of the present invention *also controls when sampling* begins following an (P)HSYNC signal or a VSYNC signal. The time from signal to first sample is called the "front porch." If sampling after an (P)HSYNC signal begins too early (i.e., the front porch is too short), the *system will sample "black" pixels prior to the real left edge of the display*. If sampling after an HSYNC signal begins too late (i.e., the from porch is too long), the system will miss sampling the beginning pixels of the display. Similar problems exist for timing with relation to the VSYNC signal. Accordingly, the present invention provides the ability to set the front porch.

[0062] In one embodiment of the present invention, the front porch is set manually through user intervention typically through a trial and error process. In three automated embodiments, the system of the present invention provides automatic determination of the front porch when a non-black background is used. In the first automated embodiment, the right edge of the screen is used as a reference. Thus, the system uses an initial front porch value, counts out the number of pixels in a row, and then determines if the pixel after the end of the row is black or colored. *If that pixel is black using the initial front porch value, then the front porch value is shortened and the counting process is repeated. This shortening process is* <u>*repeated until a non-black pixel is found in iteration*</u> *I. Then the front porch value is reverted to the front porch value in iteration I-1 i.e., to the front porch value in the previous iteration. On the contrary, if the pixel is colored when using the initial front porch value, then the front porch value is increased until a black pixel is found at the end of a row in iteration I. The front porch value is then reverted to the delay value in iteration I-1 i.e., to the front porch value in the previous iteration.*

[0063] In *the second automated embodiment, a process similar to the first automated embodiment is used, except that the beginning of the row is analyzed.* If the beginning of the row is found to be black, then the front porch value is increased until a non-black pixel is found in iteration I. Conversely, if the beginning of the row is found to be colored, then the front porch value is decreased until a black pixel is found in iteration I. Then the front porch value is reverted to the front porch value in iteration I-1.

[0064] In a third automated embodiment, the processes of the first and second *automated embodiments are combined thereby checking the left and right edges. In this manner*, the correct number of pixels per line can also be automatically determined. A similar process can be performed for the vertical delay looking at (1) the top row, (2) the bottom column, or (3) the top and bottom columns. (emphasis added)

Examiner notes, Schneider starts by making reference to resolution may be aided by reference to VESA and industry standard or detecting at the VPS a new screen resolution of the host computer. Next, Schneider adjusts a screen border to corresponding with the new screen resolution, or in other words adjusts the front porch [0062]. After that, Schneider identifies whether the adjusted screen border is near an expected location by looking for the black pixel of each row. The Office is taking the position that the black pixel at the end of each row, discussed in [0062-0064] defines a black border at the end of a frame.

Schneider teaches the condition wherein if no black border is found near the expected border location, discarding the adjusted screen border and loading a predetermined set of values for the screen border, during the optimization process. During the underlined shorting process, highlight above, if a non-black pixel is found during the shortening period the front porch value is reverted to the front porch value in the iteration before. For example, A VESA resolution is loaded, the front porch is

shortened and if a non-black pixel is found discarding the front porch adjustment and loading the original VESA resolution which was originally correct.

Schneider also teaches the condition wherein if a black border is found near the expected border location using the screen resolution of the host computer detected at the VPS instead of discarding the adjusted screen boarder and loading a predetermined set of values for the screen border. This condition is met because the optimization sub-routine is continued, i.e," If that pixel is black using the initial front porch value, then the front porch value is shortened and the counting process is repeated" [0062], or in other words, the original mode resolution first detected will be used and the front porch adjustment optimization will continue to run.

4.   In regards to claim 2, Schneider teaches (Original): the method of claim 1, wherein the predetermined set of values for the screen border is the Video Electronics Standards Association (VESA) set of standard values [0060]. Examiner notes, with Schneider if the shorting process reaches a non-black pixel the front porch value is reverted back to the iteration before which in our example would be the VESA mode originally loaded.

5.   In regards to claim 3, Schneider teaches the method of claim 1, wherein the adjusting is performed by setting a capture engine to move the screen down and to the right [0064]. Similarly the adjustment can further be done for vertical delay and thus would move the screen to the right and down.

6.   In regards to claim 4, Schneider teaches the method of claim 1, wherein the user

is prompted to manually adjust the screen border to correspond with the new screen

resolution. [0062] wherein the front porch is set manually through user intervention.

7.   In regards to claim 5, Schneider teaches the method of claim 1, wherein the VPA

automatically adjusts the screen border to correspond with the new screen resolution

[0062] automatic embodiments.

Conclusion

1.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to GRANT SITTA whose telephone number is (571)270-

1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Alexander Beck can be reached on 571-272-7765. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Grant D Sitta/
Primary Examiner, Art Unit 2629